IN THE CLAIMS:

A complete listing of the claims is set forth below. Please amend the claims as follows:

1. **(Currently Amended)** A method for synchronizing planning information in a high availability planning and scheduling architecture, comprising:

processing requests from one or more external systems using an advanced planning and scheduling (APS) engine included in a first primary high availability (HA) system, the processing of requests including modifying planning information stored in memory of the first primary HA system according to the requests;

providing, via a message bus that provides for communication between the first primary HA system and a second primary HA system, change information to a database of a database system external to the first and second primary HA systems, the change information reflecting the modifications to the planning information;

storing the change information reflecting the modifications to the planning information in [[a]] the database;

extracting the change information from the database at an extraction time;

updating the planning information using the extracted change information;

storing the updated planning information in memory of [[a]] the second primary HA system;

identifying requests that were processed by the first primary HA system after the extraction time;

updating the planning information stored in memory of the second primary HA system to account for the requests processed after the extraction time; and

replacing the first primary HA system with the second primary HA system such that the first primary HA system ceases processing requests from the external systems and the second primary HA system begins processing requests from the external systems, the second primary HA system processing the requests using an APS engine included in the second primary HA system and the updated planning information stored in memory of the second primary HA system.

2.   **(Original)** The method of claim 1, wherein:

the planning information comprises available-to-promise (ATP) supply information for one or more products; and

updating the planning information comprises:

determining, based on the extracted change information, the difference between forecasted demand and actual demand for the products; and

in response, updating the ATP supply information.

3.   **(Currently Amended)** The method of claim 1, further comprising communicating planning information from the second primary HA system to a secondary HA system after replacing the first primary HA system with the second primary HA system, the secondary HA system operable to store the ~~planing~~ planning information in memory of the secondary HA system and further operable to begin processing requests using an APS engine included in the secondary HA system and the planning information stored in memory of the secondary HA system.

4.   **(Original)** The method of claim 3, further comprising:

directing requests requiring modification of the planning information to the second primary HA system for processing; and

directing requests not requiring modification of the planning information to the secondary HA system for processing.

5.   **(Original)** The method of claim 4, wherein:

the requests requiring modification of the planning information comprise product orders; and

the requests not requiring modification of the planning information comprise product inquiries.

6.   **(Original)** The method of claim 1, wherein processing requests from one or more external systems further comprises:

generating a response to an external system in response to modifying the planning information according a request;

communicating the response to the external system;

generating a replication message reflecting modifications made to the planning information by either the first primary HA system or the second primary HA system; and

communicating the replication message to a secondary HA system that is also operable to process requests from the external system, the secondary HA system further operable to modify planning information stored in memory of the secondary HA system according to the replication message.

7.   **(Original)** The method of claim 1, wherein:

the external systems comprise external ordering systems associated with customers;

the requests comprise product orders from customers;

the planning information comprises available-to-promise (ATP) supply information associated with one or more products; and

the APS engine comprises a demand fulfillment engine operable to promise ATP supply to a customer in response to the product orders.

8.   **(Currently Amended)** A system for synchronizing planning information in a high availability planning and scheduling architecture, comprising:

a first primary high availability (HA) system, comprising:

an HA server operable to receive and queue requests from one or more external systems;

an advanced planning and scheduling (APS) engine operable to:

receive a request from the HA server;

process the request using planning information stored in memory of the first primary HA system;

modify the planning information in response to the processing;

generate a response for communication to the external system from which the request originated; and

communicate change information reflecting the modifications to the planning information;

a database system comprising a database operable to receive and store the change information;

a planning engine operable to:

extract the change information from the database at an extraction time;

update the planning information using the extracted change information; and

communicate the updated planning information; and

a second primary HA system operable to:

receive and store the updated planning information in memory of the second primary HA system;

identify requests that were processed by the first primary HA system after the extraction time;

update the planning information stored in memory of the second primary HA system to account for the requests processed after the extraction time;

instruct the first primary HA system to cease processing requests from the external systems; [[and]]

begin processing of requests from the external systems using an APS engine included in the second primary HA system and the updated planning information stored in memory of the second primary HA system; and system.

a message bus operable for providing for communication between the first and second primary HA systems and the database system,

wherein the database system is external to the first and second primary HA systems, and wherein the message bus provides for communication of the change information to the database of the database system.

9.   (Original) The system of claim 8, wherein:

the planning information comprises available-to-promise (ATP) supply information for one or more products; and

updating the planning information comprises:

determining, based on the extracted change information, the difference between forecasted demand and actual demand for the products; and

in response, updating the ATP supply information.

10.   (Original) The system of claim 8, wherein:

the system further comprises a secondary HA system comprising:

an HA server operable to receive and queue requests from one or more external systems;

an APS engine operable to:

receive a request from the HA server;

process the request using planning information stored in memory of the secondary HA system;

modify the planning information in response to the processing; and

generate a response for communication to the external system; and

the second primary HA system is further operable to communicate planning information to the secondary HA system after replacing the first primary HA system.

11.   (Original) The system of claim 10, further comprising a messaging controller operable to:

direct requests requiring modification of the planning information to the second primary HA system for processing; and

direct requests not requiring modification of the planning information to the secondary HA system for processing.

12.   (Original) The system of claim 11, wherein:

the requests requiring modification of the planning information comprise product orders; and

the requests not requiring modification of the planning information comprise product inquiries.

13.   (Original) The system of claim 10, wherein the APS engine of the second primary HA system is further operable to:

generate a replication message reflecting modifications made to the planning information by the second primary HA system in response to processing requests from the external system; and

communicate the replication message to the secondary HA system, the secondary

HA system further operable to modify planning information stored in memory of the secondary HA system according to the replication message.

14.   (Original) The system of claim 8, wherein:

the external systems comprise external ordering systems associated with customers;

the requests comprise product orders from customers;

the planning information comprises available-to-promise (ATP) supply information associated with one or more products; and

the APS engine comprises a demand fulfillment engine operable to promise ATP supply to a customer in response to the product orders.

15.   (Currently Amended) Software for synchronizing planning information in a high availability planning and scheduling architecture, the software embodied in a computer-readable medium and operable to:

process requests from one or more external systems using an advanced planning and scheduling (APS) engine included in a first primary high availability (HA) system, the processing of requests including modifying planning information stored in memory of the first primary HA system according to the requests;

provide, via a message bus that provides for communication between the first primary HA system and a second primary HA system, change information to a database of a database system external to the first and second primary HA systems, the change information reflecting the modifications to the planning information;

store the change information reflecting the modifications to the planning information in [[a]] the database;

extract the change information from the database at an extraction time;

update the planning information using the extracted change information;

store the updated planning information in memory of [[a]] the second primary HA system;

identify requests that were processed by the first primary HA system after the extraction time;

update the planning information stored in memory of the second primary HA system to account for the requests processed after the extraction time; and

replace the first primary HA system with the second primary HA system such that the first primary HA system ceases processing requests from the external systems and the second primary HA system begins processing requests from the external systems, the second primary HA system processing the requests using an APS engine included in the second primary HA system and the updated planning information stored in memory of the second primary HA system.

16.   **(Original)** The software of claim 15, wherein:

the planning information comprises available-to-promise (ATP) supply information for one or more products; and

updating the planning information comprises:

determining, based on the extracted change information, the difference between forecasted demand and actual demand for the products; and

in response, updating the ATP supply information.

17.   **(Currently Amended)** The software of claim 15, further operable to communicate planning information from the second primary HA system to a secondary HA system after replacing the first primary HA system with the second primary HA system, the secondary HA system operable to store the ~~planing~~ planning information in memory of the secondary HA system and further operable to begin processing requests using an APS engine included in the secondary HA system and the planning information stored in memory of the secondary HA system.

18.   **(Original)** The software of claim 17, further operable to:

direct requests requiring modification of the planning information to the second primary HA system for processing; and

direct requests not requiring modification of the planning information to the secondary HA system for processing.

19.   (Original) The software of claim 18, wherein:

the requests requiring modification of the planning information comprise product orders; and

the requests not requiring modification of the planning information comprise product inquiries.

20.   (Original) The software of claim 15, wherein processing requests from one or more external systems further comprises:

generating a response to an external system in response to modifying the planning information according a request;

communicating the response to the external system;

generating a replication message reflecting modifications made to the planning information by either the first primary HA system or the second primary HA system; and

communicating the replication message to a secondary HA system that is also operable to process requests from the external system, the secondary HA system further operable to modify planning information stored in memory of the secondary HA system according to the replication message.

21.   (Original) The software of claim 15, wherein:

the external systems comprise external ordering systems associated with customers;

the requests comprise product orders from customers;

the planning information comprises available-to-promise (ATP) supply information associated with one or more products; and

the APS engine comprises a demand fulfillment engine operable to promise ATP supply to a customer in response to the product orders.

22.   (Currently Amended) A system for synchronizing planning information in a high availability planning and scheduling architecture, comprising:

means for processing requests from one or more external systems using an advanced planning and scheduling (APS) engine included in a first primary high availability (HA) system, the processing of requests including modifying planning information stored in

memory of the first primary HA system according to the requests;

means for providing, via a message bus that provides for communication between the first primary HA system and a second primary HA system, change information to a database of a database system external to the first and second primary HA systems, the change information reflecting the modifications to the planning information;

means for storing the change information reflecting the modifications to the planning information in [[a]] the database;

means for extracting the change information from the database at an extraction time;

means for updating the planning information using the extracted change information;

means for storing the updated planning information in memory of [[a]] the second primary HA system;

means for identifying requests that were processed by the first primary HA system after the extraction time;

means for updating the planning information stored in memory of the second primary HA system to account for the requests processed after the extraction time; and

means for replacing the first primary HA system with the second primary HA system such that the first primary HA system ceases processing requests from the external systems and the second primary HA system begins processing requests from the external systems, the second primary HA system processing the requests using an APS engine included in the second primary HA system and the updated planning information stored in memory of the second primary HA system.

23.   **(Currently Amended)** A method for synchronizing planning information in a high availability planning and scheduling architecture, comprising:

processing requests from one or more external ordering systems using a demand fulfillment engine included in a first primary high availability (HA) system, the processing of requests including modifying (ATP) supply information stored in memory of the first primary HA system according to the requests;

providing, via a message bus that provides for communication between the first

primary HA system and a second primary HA system, change information to a database of a database system external to the first and second primary HA systems, the change information reflecting the modifications to the planning information;

storing the change information reflecting the modifications to the ATP supply information in [[a]] the database;

extracting the change information from the database at an extraction time;

updating the ATP supply information using the extracted change information;

storing the updated ATP supply information in memory of [[a]] the second primary HA system;

identifying requests that were processed by the first primary HA system after the extraction time;

updating the ATP supply information stored in memory of the second primary HA system to account for the requests processed after the extraction time;

replacing the first primary HA system with the second primary HA system such that the first primary HA system ceases processing requests from the external ordering systems and the second primary HA system begins processing requests from the external ordering systems, the second primary HA system processing the requests using a demand fulfillment engine included in the second primary HA system and the updated ATP supply information stored in memory of the second primary HA system; and

communicating ATP supply information from the second primary HA system to a secondary HA system after replacing the first primary HA system with the second primary HA system, the secondary HA system operable to store the ATP supply information in memory of the secondary HA system and further operable to begin processing requests using a demand fulfillment engine included in the secondary HA system and the ATP supply information stored in memory of the secondary HA system.